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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/359,416	07/23/1999	YOUICHI YAMADA	P7156-9039	2778
4372	7590	01/20/2006	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			MICHALSKI, JUSTIN I	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/359,416	Applicant(s) YAMADA ET AL.	
	Examiner Justin Michalski	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-7 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed 27 October 2005 have been fully considered but they are not persuasive. Applicants' argue page 2 and 3 that Suzuki does not disclose storing a series of past operation data containing past operation information. This is not persuasive as Suzuki discloses that memory (8) stores position information of the last operation of each fader operator (i.e. series of past operation data). Rather, applicants' argue memory storing means for storing a sequential series of past operations that are read-out successively (page 3, lines 9-17), which is not found in the claims.

2. Claims 1-7 stand rejected below as found in the previous Office Action mailed 8 August 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US Patent 5,060,272).

Regarding Claim 1, Suzuki discloses An audio signal processing apparatus (Fig. 1), comprising; signal processing means for processing audio signals fed from outside

equipment (input signal to processing circuit 40); operating means for setting parameters in order for said signal processing means to process the audio signals (Fig. 2); storing means for storing a series of past operation data containing past operation information of the operating means (Fig. 1, memory 38), said past operation information being associated with a series of movements of said operating means (Fig. 2, faders 1-8); designating means capable of automatically effecting a desired treatment in accordance with the past operation data stored in the storing means (Suzuki discloses faders driven by motor to corresponding memory locations, Col. 3, lines 48-57); and control means for setting parameters in order for said signal processing means to process the audio signals in accordance with said desired treatment when said designating means is operated (Fig. 1, microcomputer and control system 36).

Regarding Claim 2, Suzuki further discloses a first executing means (faders 1 and 2) enabling said storing means (38) to store said series of past operation data (position of faders 1 and 2), a second executing means (control system 36) enabling said signal processing means (40) to process the audio signals in accordance with said series of past operation data stored in said storing means (Col. 3, lines 48-57).

Regarding Claim 7, Suzuki discloses an audio signal processing apparatus, comprising; a signal processor which processes audio signals fed from outside equipment (Fig. 1, processor 40); an operating device which sets parameters in order for the signal processor to process the audio signals (Fig. 2); a memory device which stores a series of past operation data containing past operation information of the operating device (memory 38), the past operation information being associated with a

series of movements of the operating device (Fig. 2, faders 1-8); a designating device capable of automatically effecting a desired treatment in accordance with the past operation data stored in the memory device (Suzuki discloses faders driven by motor to corresponding memory locations, Col. 3, lines 48-57); and a controller which sets parameters in order for the signal processor to process the audio signals in accordance with the desired treatment when the designating device is operated (Fig. 1, microcomputer and control system 36).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 1 in view of Silfvast et al. (Hereinafter "Silfvast") (WO 93/03549).

Regarding Claim 3, Silfvast discloses a apparatus as stated apropos of claim 1 above including sliding faders to set parameters 1-8 but does not disclose operating means including a rotational body capable of setting parameters. It is well known in the art that rotational bodies such as rotary knobs are used to set parameters. Silfvast discloses an apparatus used to process audio signals and return faders and a rotary knob to a stored position (Page 28). Therefore, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to use a rotary knob as a device to select parameters to process audio signals for a desired output.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki/Silfvast as applied to claim 3 above, and further in view of Silfvast et al.

(Hereinafter "Silfvast '241") (US Patent 6,438,241).

Regarding Claim 4, Suzuki/Silfvast discloses an apparatus as stated apropos of claim 3 above but does not disclose the rotational body is connected with an optical pulse encoder for detecting angular velocity and rotating direction. Silfvast '241 discloses a display such as an array of lights wherein a sensor is coupled with the rotor, which senses its relative rotation wherein the display of lights is in response to the sensor to indicate a value of a parameter (col. 2, lines 40-56) in order to display indicating values by angular position. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to detect the angular velocity of the rotational body in order to display indicating values.

Regarding Claim 5, Suzuki/Silfvast discloses everything claimed as applied above (see claim 4). It is inherently taught that the faster the knob is turned the quicker the sensor picks up the information in order to display the light referencing the position of the parameter. Therefore the rotating direction and the speed of the knob being turned (angular velocity) is inherently used to calculate the rotating amount and which the position setting is verified by the display.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 1 above.

Regarding claim 6, Suzuki further discloses a device which imparts effects on line inputs (Col. 1, lines 5-13). It is also well known in the art that a mixing console is capable of controlling, mixing and designing audio sounds of all ranges and therefore commonly allows the user to adjust the pitch or frequency of a sound to produce a desired output of audio such as Wah, Zip, Ring, etc. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include signal processing to produce an effect as disclosed by Suzuki.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (571)272-7524. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM

January 11, 2006


HUYEN LE
PRIMARY EXAMINER